

# Notice of Allowability

Application No.

10/705,679

Applicant(s)

MCBRIDE ET AL.

Examiner

Mohammad Ali

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/24/06.
2. ☒ The allowed claim(s) is/are 1-6 and 11-28 (renumbered as 1-24).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

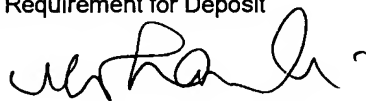
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 5/26/06.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



**MOHAMMAD ALI  
PRIMARY EXAMINER**

### **DETAILED ACTION**

1. This communication is in response to the arguments filed on 3/24/06.

After a search and a thorough examination of the present application and in light of the prior art made of records, claims 1-6 and 11-28 (renumbered as 1- 24) are allowed.

Claims 7-10 and 29-35 have been cancelled.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney, Alexander Detschel No. 50,261 on May 26, 2006.

### **Please replace the claims with the new versions as follows:**

1. A method for processing input entered by a user and providing at least one response in a system for autonomously processing the input, comprising the steps of:

providing rules,

receiving the input entered by the user;

processing the input after the input is entered by the user, wherein the step of processing the input includes the step of standardizing the input by using (a) a remove punctuation process, (b) a spell check process, (c) an expand contractions process, and (d) a standardize case process, and for each rule:

determining if the input is recognized, and

if the input is recognized, sending an appropriate response to the user,

wherein the step of determining if the input is recognized, includes the steps of:

attempting to match the input to at least one pattern,

if no match is found, not recognizing the input and continuing to the next rule, and

if a match is found, either:

recognizing the input and continuing to the step of sending the appropriate response, or

conditionally recognizing the input and executing at least one statement validator to determine if the input is appropriately matched by the rule, the statement validator including the steps of:

querying structured data to determine if a logic statement evaluates to true,

depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending  
the appropriate response,  
repeating the step of querying the structured data for the  
next statement validator, if available, or  
not recognizing the input and  
continuing to the next rule.

2. The method according to claim 1, wherein the statement validator further  
includes the steps of:

taking a relevant part of the input based on code of the rule,  
querying the structured data using the relevant part to obtain a result,  
evaluating a logic statement based on the result, where depending upon whether  
the statement evaluates to true or false, either:

recognizing the input and continuing to the step  
of sending the appropriate response,  
repeating the step of querying the structured  
data for the next statement validator, if available, or  
not recognizing the input and continuing to the  
next rule.

3. The method according to claim 1, wherein the statement validator further  
includes the steps of:

taking a relevant part of the input based on code of the rule,  
querying the structured data using the relevant part to obtain a result,  
evaluating a logic statement based on the result and the relevant part, where  
depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending the  
appropriate response,

repeating the step of querying the structured data for the  
next statement validator, if available, or

not recognizing the input and continuing to the next rule.

4. The method according to claim 1, wherein the statement validator further  
includes the steps of:

querying the structured data to obtain a result,

taking a relevant part of the input based on code of the rule,

evaluating a logic statement based on the result and the relevant part, where

depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step of sending  
the appropriate response,

repeating the step of querying the structured data for the  
next statement validator, if available, or

not recognizing the input and

continuing to the next rule.

5. The method according to claim 1, wherein the statement validator further includes the steps of:

querying the structured data to obtain a result,

evaluating a logic statement based on the result, where depending upon whether the statement evaluates to true or false, either:

recognizing the input and continuing to the step

of sending the appropriate response,

repeating the step of querying the structured

data for the next statement validator, if available, or

not recognizing the

input and continuing to the next rule.

6. The method according to claim 1, wherein the input includes questions, declarative statements, or other normal communication patterns.

7-10. (Cancelled)

11. The method according to claim 1, wherein the step of processing the input includes the step of extracting structure or meaning from the input.

12. The method according to claim 11, wherein the step of extracting structure or meaning from the input is accomplished using one or more of a lexical analysis process or a semantic analysis process.

13. The method according to claim 1, wherein the step of sending the appropriate response includes the steps of:  
extracting executable code from the appropriate response, and  
running the executable code to embed dynamic information in the appropriate response.

14. The method according to claim 1, the method further includes the steps of, for any rule for which the input is recognized:  
identifying logic within the rule, and  
executing the logic.

15. The method according to claim 14, wherein the step of executing logic includes the step of choosing the appropriate response from a set of responses.

16. The method according to claim 15, wherein the step of choosing the appropriate response is achieved by randomly choosing from the set of responses.

17. The method according to claim 15, wherein the step of choosing the appropriate response is based upon a query of outside information.

18. The method according to claim 15, wherein the step of choosing the appropriate response is based upon a query of the structured data.

19. The method according to claim 14, wherein the step of executing logic includes the step of choosing the appropriate response from a set of responses based upon the step of executing at least one statement validator to determine if a logic statement in the statement validator evaluates to true.

20. A computer based system that processes input entered by a user and provides at least one response in a system for autonomously processing requests, comprising:  
an engine configured to:

receive the input from the user; and

process the input by standardizing the input by using (a) a remove punctuation process, (b) a spell check process, (c) an expand contractions process, and (d) a standardize case process; and

a set of rules accessible by the engine, wherein for each rule the engine is configured to:

determine if the input is recognized, and

send an appropriate response to the user if the input is recognized,

wherein the engine is configured to determine if the input is recognized by:

attempting to match the input to at least one pattern, and



if no match is found, not recognizing the input and continuing to the next rule, and

if a match is found, either:

recognizing the input and sending the appropriate response, or

conditionally recognizing the input and executing at least one statement validator to determine if the input is appropriately matched by the rule, wherein the statement validator is configured to:

query structured data to determine if a logic statement evaluates to true, and depending upon whether the statement evaluates to true or false, either:

recognizing the input and sending the appropriate response,

querying the structured data for the next

statement validator, if available, or

not recognizing the input and continuing

to the next rule.

21. The system according to claim 20, further including script storage housing the set of rules.

22. The system according to claim 20, wherein each rule includes an input recognizer and at least one response layer.

23. The system according to claim 22, wherein each rule further includes at least one logic layer.

24. The system according to claim 20, further including:  
client software adapted to receive the input from the user; and  
a connection interface in communication with the client software and the engine.

25. The system according to claim 24, wherein the connection interface includes the client software.

26. The system according to claim 20, further including a user interface in communication with the connection interface and including the client software.

27. The computer based apparatus according to claim 26, further including a network interconnecting the connection interface and the user interface.

28. The system according to claim 20, further including other data sources utilizable by the engine to identify a response.

29-35. (Cancelled)

***Reason for Allowance***

3. The prior art made of records does not teach or fairly suggest the combination of elements, as recited in independent claims 1 and 20. More specifically, the prior art of records does not specifically suggest as argued by applicant's and Examiner's amendment.

The dependent claims, being definite, further limiting, and fully enabled by the specification and are also allowed.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mohammad Ali  
Primary Examiner  
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MA  
February 17, 2006